Amendments to the Abstract

A polythioether includes a structure having the formula I

$$-R^{1}-[-S-(CH_{2})_{2}-O-[-R^{2}-O-]_{m}-(CH_{2})_{2}-S-R^{1}-]_{n}-$$
I

wherein

 R^1 denotes a divalent C_{2-6} n-alkylene, C_{3-6} branched alkylene, C_{6-8} cycloalkylene or C_{6-10} alkylcycloalkylene group, $-[(-CH_2-)_p-X-]_q-(-CH_2-)_r-$, or $-[(-CH_2-)_p-X-]_q-(-CH_2-)_r-$ in which at least one $-CH_2-$ unit is substituted with a methyl group,

 R^2 denotes methylene, a divalent C_{2-6} n-alkylene, C_{2-6} branched alkylene, C_{6-8} cycloalkylene or C_{6-10} alkylcycloalkylene group, $-[(-CH_2-)_p-X-]_q-(-CH_2-)_r-$, or $-[(-CH_2-)_p-X-]_q-(-CH_2-)_r-$ in which at least one $-CH_2-$ unit is substituted with a methyl group,

X denotes one selected from the group consisting of O, S and -NR⁶=,

R⁶ denotes H or methyl,

m is a rational number from 0 to 10,

n is an integer from 1 to 60,

p is an integer from 2 to 6,

q is an integer from 1 to 5, and

r is an integer from 2 to 10.

The polythioether is a liquid at room temperature and pressure.